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What is claimed.

1. A test element for determining the level of phenylalanine in a biological fluid comprising a layer onto which a sample of the biological fluid is applied and a reagent layer containing a material that is interactive with phenylalanine or a precursor of a reaction product of phenylalanine.

- 2. The test element of claim 1, wherein the reagent layer comprises an enzyme which converts phenylalanine to phenylpyruvate.
- 3. The test element of claim 2, wherein the reagent layer comprises phenylalanine dehydrogenase.
- 4. The test element of claim 1, wherein the reagent layer comprises buffered enzymatic color-imetric reagents wherein a reaction signals the presence/absence of phenylalanine.
- 5. The test element of claim 1, wherein the reagent layer comprises a buffer, a dye/mediator and enzyme/cofactor.
- 6. The test element of claim 1, wherein the reagent layer comprises a hydrophilic polymer.
- 7. The test element of claim 5, wherein the hydrophilic polymer is gelatin or agarose.
- 8. The test element of claim 4, wherein the colorimetric reagent is thionine, Rose Bengal, Methylene Blue, Azure C or a tetrazolium salt.
- 9. The test element of claim 5, wherein the mediator is 1- methoxy phenazine methosulfate.
- 10. The test element of claim 1, further comprising a support layer.
- 11. A medical device adapted for the monitoring of blood levels of phenylalanine utilizing colormetric analysis, comprising a unit containing testing elements according to claim 1, or insertion means for receiving the test elements according to claim 1 having a test biological sample thereon and a means on said device for displaying a test result for a level of phenylalanine in the biological sample.
- 12. The device of claim 11, further comprising a memory means for storing previous biological sample results and means for displaying the stored biological sample result.

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13. The device of claim 12, possibly comprising a means to allow phenylalanine determinations to be downloaded to physicians offices.

- 14. A device used in the monitoring of phenylalanine levels wherein the device is non-invasive utilizing, for example, interstitial fluids.
- 15. A method of determining the presence or absence of phenylalanine in a biological sample comprising applying the biological sample to a test strip according to claim 1 allowing the biological sample to react with the reagent layer and colorimetrically determining a level of phenylalanine in the biological sample.
- 16. The device of claim 11, wherein the device is a table-top plug-in device.
- 17. The device of claim 11, wherein the device is battery operated.
- 18. The device of claim 11, wherein the device is fuel-cell powered.